

[0021] The first non-heater portion may be formed on each of both ends of the first heater portion.

[0022] When the first conductor is sealed in the first non-heater portion, the first conductor may be sealed by a first sealing member having insulation or flame retardancy.

[0023] The first sealing member may be formed of glass or ceramic.

[0024] The fusing device may further include a first connection member provided between the first heater and the first conductor and configured to electrically connect the first heater and the first conductor.

[0025] The second heater may be formed to be longer than the first heater so that a second heating section of the second heater is greater than a first heating section of the first heater and includes the first heating section.

[0026] A heat value for each section of a first portion of the second heater corresponding to the first heating section may be smaller than a heat value for each section of a second portion which is a portion excluding the first portion of the second heater.

[0027] The heat value for each section of the second heater may be uniform in a width direction of the printing medium.

[0028] The second heating source may include a second heater portion disposed corresponding to the first non-heater portion; and a second non-heater portion partitioned from the second heater portion, in which the second heater or the second conductor is sealed so that heat is not generated.

[0029] The second heating source may include a second body having the second heater disposed therein and formed to extend in a width direction of the printing medium, a second heater portion including a gas in a hollow provided in a part of the second body for heating the second heater may be formed in the part of the second body, and a second non-heater portion partitioned from the second heater portion may be formed in a remaining part of the second body so that the second heater or the second conductor disposed therein is blocked from the gas.

[0030] The part of the second body in which the second non-heater is formed may be formed to surround the second heater or the second conductor by heat seal.

[0031] When the second conductor is sealed in the second non-heater, the second conductor may be sealed by a second sealing member having insulation or flame retardancy.

[0032] The second heater portion may be formed on each of both ends of the second non-heater portion.

[0033] The fusing device may further include a second connection member provided between the second heater and the second conductor and configured to electrically connect the second heater and the second conductor.

[0034] In accordance with another aspect of the present disclosure, an image forming apparatus includes a fusing device configured to fuse a visible image, which is transferred to a printing medium, to the printing medium, wherein the fusing device includes a first heating source including a first heater, a body having the first heater disposed therein and formed to extend in a width direction of the printing medium, and a first conductor connected to the first heater; a second heating source including a second heater formed to be longer than the first heater so that a second heating section, which is greater than a first heating section of the first heater and includes the first heating section, is heated, and a second conductor connected to the second heater; a fusing member to be heated by at least one of the first heating source and the second heating source; and

a pressing member disposed to face the fusing member and configured to press the printing medium toward the fusing member; wherein the body includes a hollow provided therein; a first heater portion including a gas in the hollow; and a first non-heater portion to block the first heater or the first conductor from the gas in which the first heater of the first conductor is sealed.

[0035] The part of the body in which the first non-heater portion is formed may be formed to surround the first heater or the first conductor by heat seal.

[0036] In accordance with still another aspect of the present disclosure, a fusing device, includes a fusing member configured to fuse a visible image to a printing medium; a pressing member disposed to face the fusing member and configured to press the printing medium toward the fusing member; a first halogen lamp including a halogen gas and a first heater extending in a width direction of the printing medium to heat the fusing member and provided with a first non-heater portion in which a part of the first heater is sealed for blocking the halogen gas so that heat is not generated; and a second halogen lamp provided with a second heater extending in the width direction of the printing medium to heat the fusing member.

[0037] The first halogen lamp may include a body configured to accommodate the first heater therein, and a part of the body in which the first non-heater portion is formed may be formed to surround the first heater by heat seal.

BRIEF DESCRIPTION OF THE DRAWINGS

[0038] These and/or other aspects of the disclosure will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings of which:

[0039] FIG. 1 is a perspective view of an image forming apparatus according to one embodiment of the present disclosure;

[0040] FIG. 2 is a schematic view illustrating a configuration of the image forming apparatus illustrated in FIG. 1;

[0041] FIG. 3 is a cross-sectional view illustrating a fusing device illustrated in FIG. 2;

[0042] FIG. 4 is a partial cross-sectional view illustrating the fusing device illustrated in FIG. 2;

[0043] FIG. 5 is a schematic view illustrating first and second heating sources of the fusing device illustrated in FIG. 2;

[0044] FIG. 6 is an enlarged view of a first non-heater portion of the first heating source illustrated in FIG. 5;

[0045] FIG. 7 is a schematic view illustrating a configuration for controlling the first heating source and the second heating source of the fusing device illustrated in FIG. 5;

[0046] FIG. 8 is a comparison table for the printing performance of the image forming apparatus illustrated in FIG. 1 and a conventional apparatus;

[0047] FIGS. 9 and 10 are views illustrating various modified embodiments of the first non-heater portion illustrated in FIG. 6;

[0048] FIGS. 11 and 12 are views illustrating various modified embodiments of the second heating source illustrated in FIG. 5;

[0049] FIG. 13 is an enlarged view of a second non-heater portion of the second heating source illustrated in FIG. 12; and